

# NATURAL HISTORY MISCELLANEA

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## **A New Lizard of the Genus *Cnemidophorus* from Nayarit**

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On March 19, 1954 Dr. Murray L. Johnson and I collected three *Cnemidophorus* among the tumbled stones of the ruined Cerro de la Contaduria (old city of San Blas) , Nayarit. This historical site is located on a steep promontory rising above the flat coastal area between San Blas and Puente El Conchal. The specimens were extraordinarily wary and difficult to discover, and to collect. On examination they appeared to represent a new subspecies of the *guttatus* complex, a group previously known only from the southern states of Mexico north to Colima on the west coast (*Cnemidophorus guttatus immutabilis* Cope) and to Veracruz on the Atlantic coast (*Cnemidophorus guttatus guttatus* Wiegmann) . It is proposed that this northern race be known as

*Cnemidophorus guttatus* *lineatus* ssp. nov.

*Type Specimen*: No. 7547, Museum of Natural History, College of Puget Sound ; paratypes : No. 7545 and 7546, same collection.

*Diagnosis*: A small to medium-sized *Cnemidophorus* with bright blue tail and feet ; 12 light-colored, thin, sharply demarcated lines in the dorsal-lateral pattern ; a large white spot on the lower eyelid ; two frontoparietals ; three supraoculars ; mesoptichials enlarged ; 8-10 pre-anal scales along midline from last abdominal scute to anus ; enlarged brachials in about five irregular rows ; postbrachials small ; enlarged femoral scales in about eight rows ; thighs striped, sometimes obscurely so ; supraoculars almost encircled above and below by rows of small rounded scales ; about seven enlarged scales in a line between post-oculars and midline.

*Description of the type*: A medium-sized *Cnemidophorus* (snout-vent 54 mm., tail 115 mm.) with twelve dorsal light lines; tail bright blue ; the head roughly rectangular in outline as seen from above, the

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snout tapering sharply (Fig. 1) ; profile angulated at eye ; rostral scale sharply angulated at its contact with the nasal ; nostril at lower margin of nasal ; nasal scales broadly in contact at midline ; frontonasal hexagonal ; two large prefrontals; frontal narrowly in contact with the anterior supraocular and not at all with the other two ; two frontoparietals; interparietal longer and narrower than parietals; occipitals small and irregular ; three supraoculars; a row of small scales between the supraoculars and the median head scales extending to the anterior supraocular ; two or three rows of very small scales below the supraoculars, extending as far forward as the anterior supraocular ; seven scales in a line from the small posterior oculars to a point of termination between the median head scales; eleven enlarged scales in a line from the posterior edge of the eyelid to the ear opening.

Postnasal angulated ; loreal large, concave ; seven supraciliary scales ; one preocular ; three large suboculars, all in contact with the supralabials ; seven supralabials ; seven right, six left infralabials; seven large marginal chin shields, separated from the infralabials by a row of small, rounded scales; mental short, rounded ; postmental in contact with mental anteriorly, and with the two most anterior chin shields posteriorly ; median gular scales enlarged ; a broad collar of greatly enlarged mesoptychials extending across neck, the most medial scales being the largest.

Dorsal scales very small and lustrous ; ventral scales smooth irregular parallelograms, arranged in eight longitudinal rows ; thirty-four ventrals from gular fold to preanal region; ten scales between abdominal plates and anus.

Enlarged brachial scales in about five irregular rows ; postbrachials small; two complete, and a third incomplete row of enlarged antibrachials ; enlarged femoral scales in about eight irregular rows ; femoral pores 17-17 ; 33 lamellae on ventral surface of fourth toe ; tail scales narrow, rectangular, obliquely set, with diagonally placed keel on dorsal and lateral scales; ventral scales of tail smooth.

Head dark brown above, coppery laterally and behind the eyes ; anterior margin of ear opening light colored, with a poorly defined line extending forward to the eye and expanding on the lower lid to a large whitish spot.

Body uniform dark brown above and laterally, the scales lustrous, and with a rosy blush in certain light angles ; twelve fine, slightly wavy longitudinal lines, the four most dorsal tan in color, originating on

the nape, and all but the most medial pair extending onto the tail with an abrupt color change to bright blue ; the fifth line is broadest, white, and originates at the upper posterior margin of the ear, passing along the lateral body wall to the thigh insertion. From this point it is reflected along the anterior edge of the thigh, leg, and tarsus. It is again

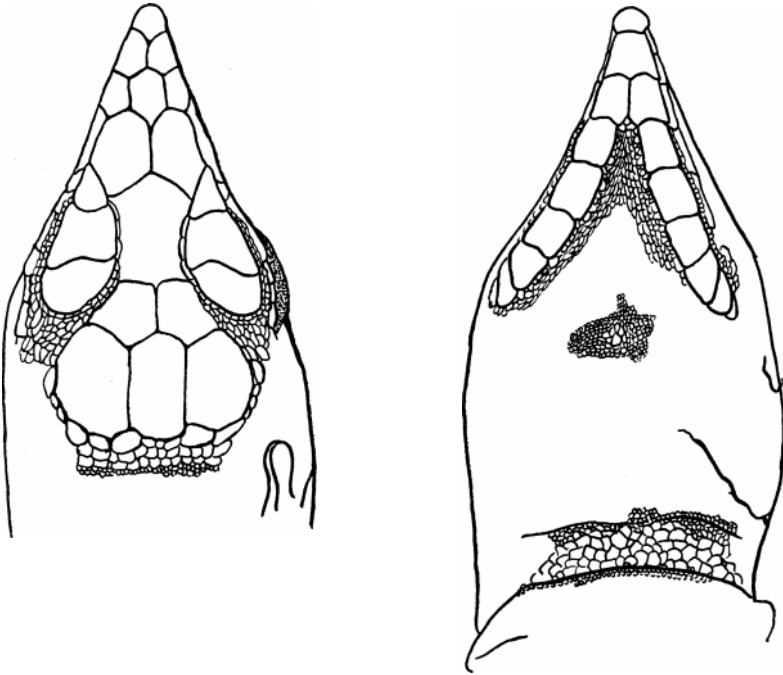


Figure 1. *Cnemidophorus guttatus duodecemlineatus* ssp. nov., Type Specimen, Mus. Nat. Hist., College of Puget Sound, no. 7547, Cerro de la Contaduria (old city of San Blas), Nayarit, Mexico.

visible on the posterior surface of the tarsus, leg, and thigh, and passes onto the tail as a prominent white stripe separated by a narrow broken band of black from the ventral tail color ; the shortest of the longitudinal lines originates at the lower posterior ear margin and ends on the shoulder ; no dark or light spotted pattern, or indication of such pattern.

Thighs and legs dashed with pale grayish-white forming four longitudinal lines the length of the extremity; scales of dorsum of feet bright blue, and of dorsum of tail bright blue with narrow irregular blackish longitudinal lines ; throat and abdomen pale blue without markings ; ventrum of thighs and tail (and lower abdomen) white.

The gonads were fully developed and appeared functional. The specimen was believed therefore to be at least subadult.

The paratypes are very similar in structure and color to the type. No. 7545 measured 47 mm. snout-vent, 108 mm. tail. there were 36 lamellae beneath the fourth toe ; femoral pores 16-16, postocular scales 7-7, and ten scales in a line between abdominal scutes and anus. No. 7546 was 46 mm. snout-vent, 84 mm. tail, with 31 subdigital lamellae, femoral pores 15-16, postoculars 7 on the left and aberrant on the right (4) , and 8 preanal scales. The dorsal stripes in both were brighter and more sharply demarcated than in the type specimen. These were considered to be juvenile specimens.

*Relationships:* This form is a member of the *guttatus* complex of the *deppii* group in having three supraoculars, a striped pattern, 8 to 10 preanal scales along the midline, and about 7 enlarged scales in a line between the postoculars and the median head scales. It differs from *C. g. immutabilis* Cope in the presence of 12 instead of 8 dorsal light lines, tail and feet bright blue, thighs striped, not spotted, enlarged brachials in 5 instead of 3 rows, femorals in 8 instead of 10 rows, 1 instead of 2 rows of scales between the chin shields and infralabials, and in more northern distribution. *C. g. guttatus* has a spotted dorsal pattern in adults and subadults, and is restricted to the states of Oaxaca and Veracruz. This subspecies resembles *C. deppii lineatissimus* Cope in presenting dorsal color with a "pin stripe" pattern, but has 12 distinct very fine lines, and no indication of a broad median dorsal light line. It differs from *lineatissimus* as well as from the other members of the *deppii* group in the absence of spotting or mottled barring of the lateral body wall, and in the absence of a black throat or collar (at least as far as present specimens are concerned there is no trace of such pattern ; older specimens may prove these characters invalid) . The enlarged-scale count from the postoculars to the midline is higher than in the *deppii* group (nearer 7 than 5 ) , and there are more than 4 to 8 (nearer 10) scales in the midline as measured from the last abdominals to the anus. Further collections from the type locality will establish more firmly the adult size and coloration.

Dr. W. Leslie Burger, Dr. Jay M. Savage, Dr. Hobart M. Smith and Dr. Edward H. Taylor gave much assistance in evaluating the specimens. Without their help these notes could not have been completed.

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